

The logo for DONE, featuring the word "DONE" in a bold, teal, sans-serif font. The letter "D" is stylized with a white circular element on its left side. The logo is enclosed in a thin teal rounded rectangular border.

**DONE**

# PXG SERIES LED DRIVERS

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**DL-150Z-A/S/X/CX-PXG SPEC V1.1**

## Features

- Class I structure
- Input voltage: 100-277V ~ 50/60Hz
- Efficiency :94% (Typ.)
- Constant current output control mode,with constant power limitation
- Metal shell structure, protection grade: IP42
- Lightning level: differential mode 6kV, Common mode 10kV
- Dim-off function available.(X/CX version only)
- Function selection:
  - Output current is adjusted by external potentiometer (whole series)
  - Isolation dimming function: 3-in-1 dimming (0-10V, PWM, resistance) (X,CX,S version)
  - Isolation Auxiliary Power supply (X/CX version) :12VDC 300mA
- Lifetime design: 5 years



## Applications

Road lighting、 Industrial lighting、 Venue lighting  
 Floodlight lighting、 Landscape lighting、 Plant lighting



## Model list

| Model NO.         | Input voltage       | Output power | Output voltage | The default current | Eff. | THD. | PF    |
|-------------------|---------------------|--------------|----------------|---------------------|------|------|-------|
| DL-150Z-260A-PXG  | 100-277V<br>50/60Hz | 150W         | 180-260Vdc     | 0.7A                | ≥94% | ≤10% | ≥0.95 |
| DL-150Z-260S-PXG  |                     |              |                |                     |      |      |       |
| DL-150Z-260X-PXG  |                     |              |                |                     |      |      |       |
| DL-150Z-260CX-PXG |                     |              |                |                     |      |      |       |

- Note:**
1. Test conditions of the above parameters: Ta=25°C, 230Vac input, full load operation for 30 minutes.
  2. When the input is in the range of 100-277VAC, output the rated power of 150W,please ensure that the input voltage is within the allowable range.  
 Please refer to "THE OUTPUT POWER VS INPUT VOLTAGE" curve chart for details.

## Input characteristics

| Parameter           | Min    | Typ.    | Max    | Note                       |
|---------------------|--------|---------|--------|----------------------------|
| Rated input voltage | 100Vac | 230Vac  | 277Vac | -                          |
| Input voltage range | 95Vac  | -       | 305Vac | -                          |
| Rated frequency     | 47Hz   | 50/60Hz | 63Hz   | -                          |
| Power factor        | -      | 0.95    | -      | @230Vac full load          |
|                     | 0.92   | -       | -      | @277Vac full load          |
| T.H.D.              | -      | -       | 10%    | @230Vac/50Hz full load     |
| Input current       | -      | -       | 1.7A   | @100Vac full load          |
| Inrush current      | -      | -       | 100A   | @230Vac, cold start (25°C) |

## Output characteristic

| Parameter                                       | Min  | Typ.   | Max   | Note                         |
|---|------|--------|-------|------------------------------|
| Rated current<br>DL-150Z-260A/S/X/CX-PXG        | -    | 0.575A | -     | -                            |
| Output current range<br>DL-150Z-260A/S/X/CX-PXG | 0.4A | -      | 0.75A | -                            |
| Output voltage range<br>DL-150Z-260A/S/X/CX-PXG | 180V | -      | 260V  | -                            |
| Constant power output<br>voltage range          | 200V | -      | 260V  | Maximum output power 150W    |
| Constant current output<br>voltage range        | 180V | -      | 260V  | Maximum output current 0.75A |
| No-load voltage<br>DL-150Z-260A/S/X/CX-PXG      | -    | -      | 320V  | -                            |
| Efficiency@100Vac<br>DL-150Z-260A/S/X/CX-PXG    | -    | 88%    | -     | full load                    |
| Efficiency@230Vac<br>DL-150Z-260A/S/X/CX-PXG    | -    | 94%    | -     | full load                    |

## Output characteristic

| Parameter                  | Min   | Typ. | Max    | Note                  |
|----------------------------|-------|------|--------|-----------------------|
| Accuracy of output current | -7%   | -    | +7%    | full load             |
| Ripple of output current   | -     | 5%   | -      | full load             |
| Line regulation            | -3%   | -    | +3%    | full load             |
| Load regulation            | -5%   | -    | +5%    | full load             |
| Starting time              | 100ms |      | 1000ms | @100-277Vac full load |

**Note:** The output current range is limited by the input and output Voltage, Please refers to “I-V WORKING AREA” for details.

## Dimming Characteristic

| Dimming function               |                             | Min   | Typ. | Max    | Instructions                        |
|--------------------------------|-----------------------------|-------|------|--------|-------------------------------------|
| 0-10V Dimming<br>(Optional)    | Safe applied voltage range  | 0V    | -    | 12V    | Refer to note 2                     |
|                                | Dimming output range        | 0%    | -    | 100%   | -                                   |
|                                | Rated dimming voltage range | 0V    | -    | 10V    |                                     |
| PWM Dimming<br>(Optional)      | PWM high level              | 9.5V  | -    | 10.5V  | -                                   |
|                                | PWM low level               | 0V    | -    | 0.3V   | -                                   |
|                                | PWM frequency band          | 300Hz | -    | 2000Hz | -                                   |
|                                | PWM duty cycle              | 0%    | -    | 99%    | Output full power at 99% duty cycle |
| Resistor Dimming<br>(Optional) | External resistance value   | 0KΩ   | -    | 100KΩ  | -                                   |
|                                | Dimming output range        | 0%    | -    | 100%   | -                                   |

- Note:**
- Output current of dimming port: 100uA (typical value).
  - The maximum voltage applied to the dimming port is suggested below 12V, but it also is protected against wrong voltage that below 230VAC or 300VDC. Please don't keep the wrong voltage apply to the port for a long time. Otherwise, it is possible to be damaged.



## Protection

| Function                        | Function instructions   |
|---------------------------------|---|
| Output overload protection      | Protection mode: hiccup mode, recovers automatically after fault condition is removed.  |
| Output short circuit protection | Hiccup mode: recovers automatically after fault condition is removed  |
| Over temperature protection     | Self-recovery type: when the housing temperature is greater than 95±5°C, the output power decreases gradually.  |
| Output over-voltage protection  | Protection mode: Hiccup mode or clamped in output highest voltage , the product is not damaged, LED driver works normally after fault condition is removed. |

**Note:** Unless otherwise specified, all specifications and parameters shall be measured at the conditions of 230Vac (50Hz), rated load and 25°C of ambient temperature.

## Environmental

| Environmental categories      | Parameter  |
|-------------------------------|--|
| Working temperature           | -40 ~ +40°C@100-200Vac, -40 ~ +55°C@200-277Vac(refer to "Life Curve ") |
| Working humidity              | 20 ~ 95% RH, non-condensing  |
| Tcase                         | 95±5°C   |
| Storage temperature, humidity | -40~+80°C, 10 ~ 95% RH   |
| Resistant to vibration        | 10 ~ 500Hz, 5G 12 min/cycle, X, Y, Z axis 72 min each                  |
| MTBF                          | 100Khrs min. MIL-HDBK-217F (Ta=25°C)                                   |
| Lifetime                      | 70000H@Tcase75°C,(Please refer to Lifetime VS Tcase curve for details) |

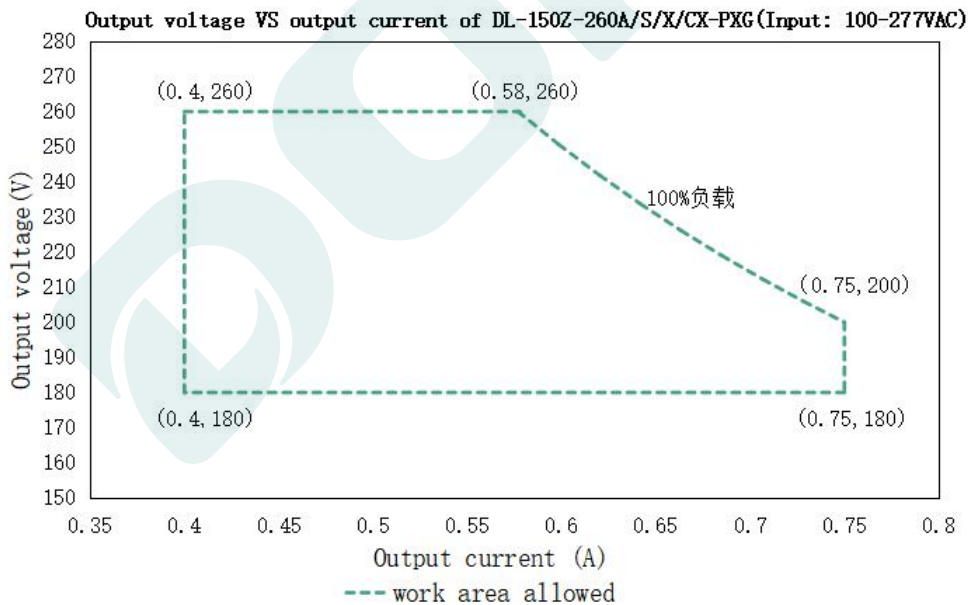
## Safety and EMC

| Safety categories    | Standard  |
|----------------------|---|
| Safety               | GB19510.1、GB19510.14、EN61347-1、EN61347-2-13、IEC61347-1、IEC61347-2-13、AS/NZS61347.1、AS61347.2.13、EN 62384、UL8750 |
| EMC                  | EN 55015、EN 61000-3-2 、GB/T 17743、GB17625.1、EN 61000-3-3  |
| Surge protection     | Differential L/N ± 6 KV (2Ω), Common L/N-PE± 10 KV (12Ω) Refer to IEC61000-4-5 2014                             |
| High-pot test        | I/P-PE :1.5KVac I/P-DIM:1.5KVac   |
| Insulation impedance | I/P-PE:100MΩ / 500VDC; 25°C/ 70% RH   |
| Leakage current      | < 0.7mA @277Vac   |

**Note:**

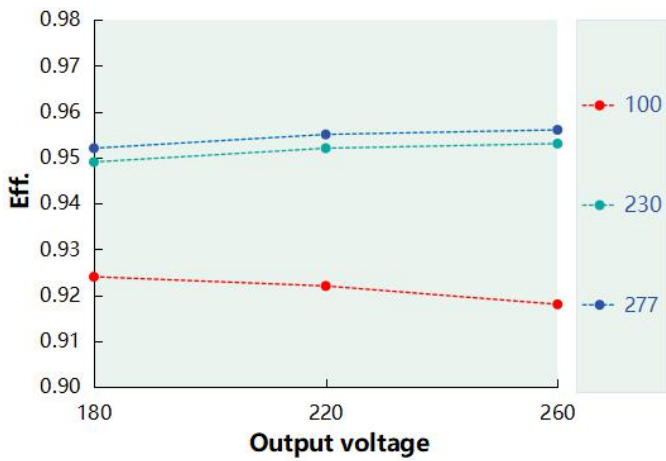
1. Attention! As a component of the whole, the EMC performance of the final product is not only decided by the driver, even if the driver is well-designed and fulfil all the required compliance. The final equipment manufacturers must re-qualify EMC Directive on the complete product.
2. Because of the restart of OVP, to keep well connection of the load is recommended.

## I-V Working area

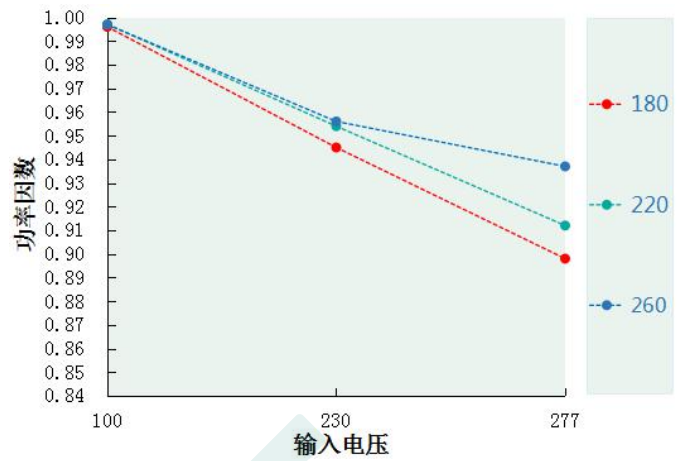


| Load                 | Output |        |       |        |        |        |        |      |        |
|----------------------|--------|--------|-------|--------|--------|--------|--------|------|--------|
| Load working Voltage | 180V   | 190V   | 200V  | 210V   | 220V   | 230V   | 240V   | 250V | 260V   |
| Io_MAX               | 0.75A  | 0.75A  | 0.75A | 0.714A | 0.682A | 0.652A | 0.625A | 0.6A | 0.575A |
| Po_MAX               | 135W   | 142.5W | 150W  | 150W   | 150W   | 150W   | 150W   | 150W | 150W   |

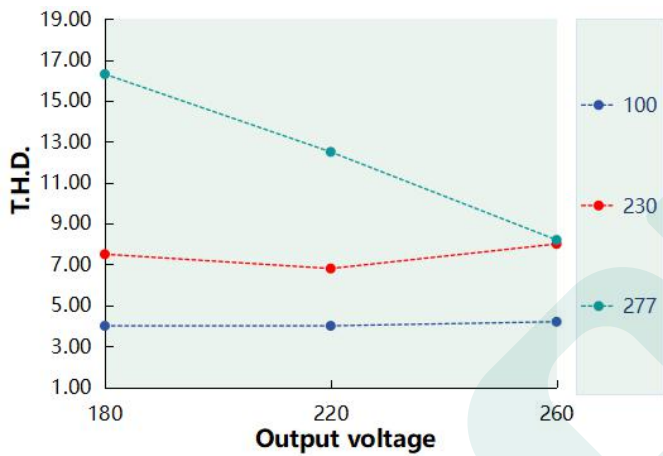
**Eff. VS Output voltage (DL-150Z-260A/S/X/CX-PXG)**



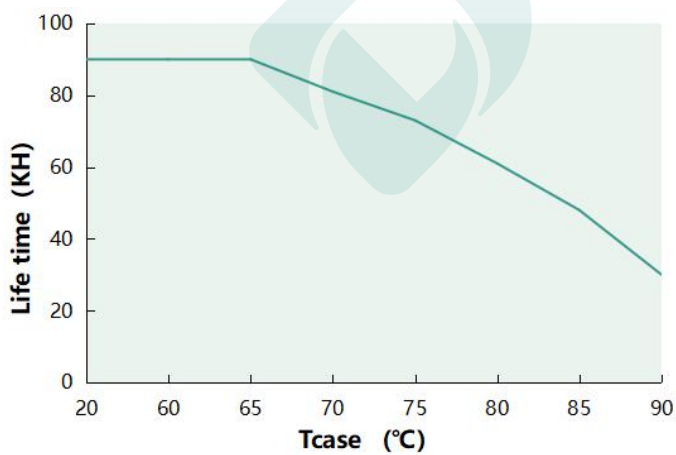
**PF VS Input Voltage (DL-150Z-260A/S/X/CX-PXG)**



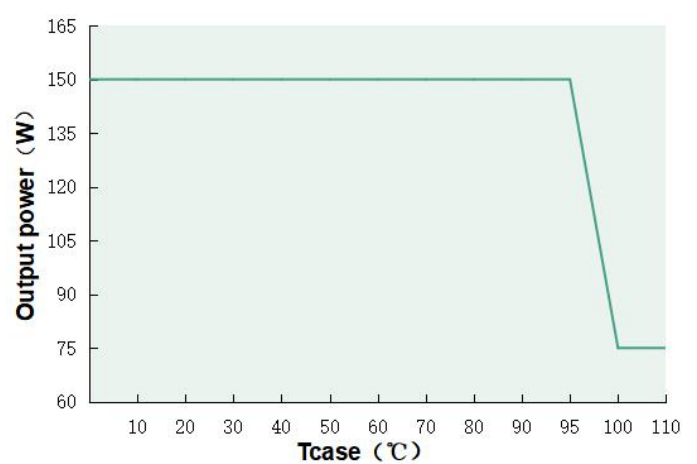
**T.H.D. VS Output voltage (DL-150Z-260A/S/X/CX-PXG)**



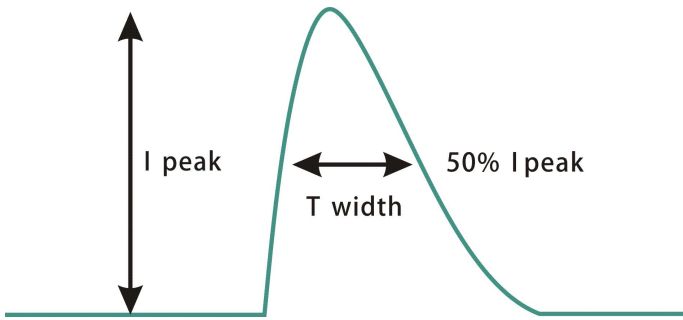
**Lifetime VS Tcase (DL-150Z-260A/S/X/CX-PXG)**



**Output power VS Tcase (DL-150Z-260A/S/X/CX-PXG)**

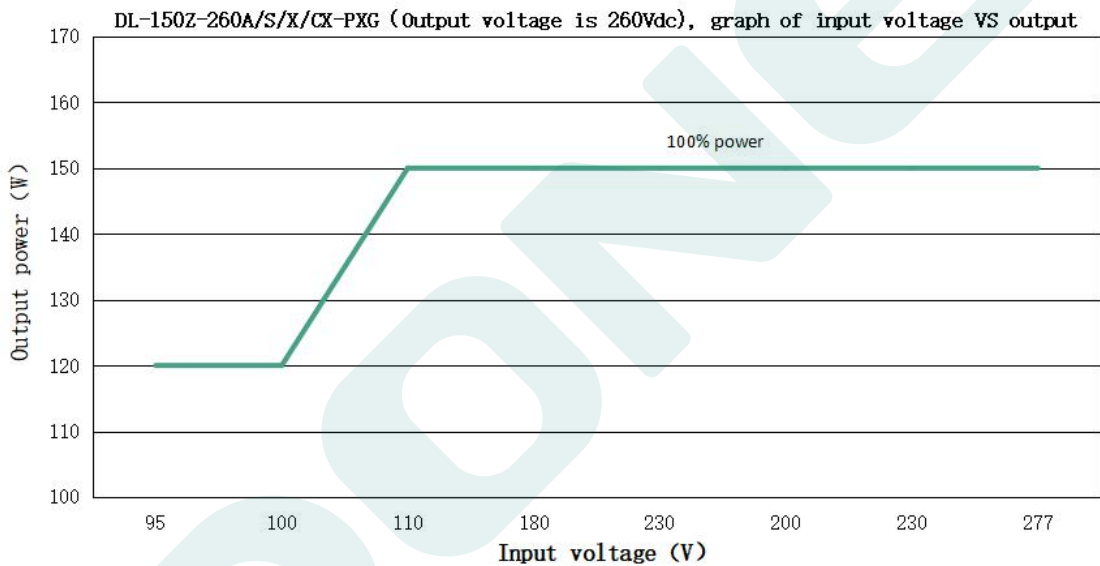


**Inrush Current (DL-150Z-260A/S/X/CX-PXG)**



| Input voltage | Peak current | T(@50% Peak current) |
|---------------|--------------|----------------------|
| 120Vac        | 33A          | 167us                |
| 230Vac        | 60A          | 185us                |
| 277Vac        | 72A          | 176us                |

**Output power VS Input voltage**



DL-150Z-260A/S/X/CX-PXG Input voltage VS Output Current( $V_o=260V_{dc}$ ) VS Output Power

| Input Voltage | 95Vac | 100Vac | 110Vac | 180Vac | 230Vac | 277Vac |
|---------------|-------|--------|--------|--------|--------|--------|
| I out         | 0.46A | 0.46A  | 0.575A | 0.575A | 0.575A | 0.575A |
| Pout          | 120W  | 120W   | 150W   | 150W   | 150W   | 150W   |

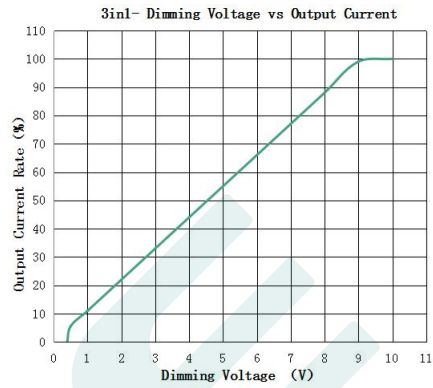
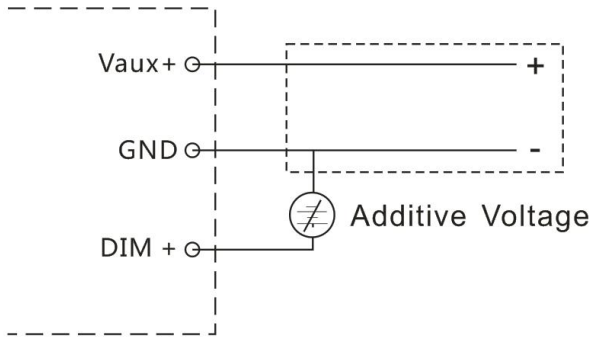
**Note:** When the input voltage is less than 108V, the power needs to be reduced to 120W.

## Dimming operation

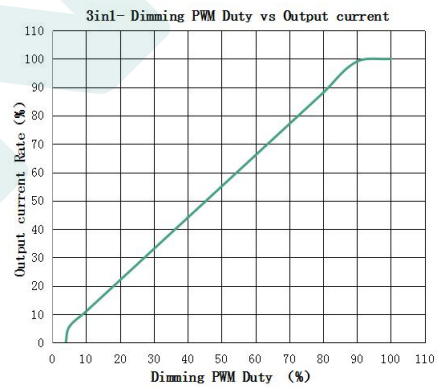
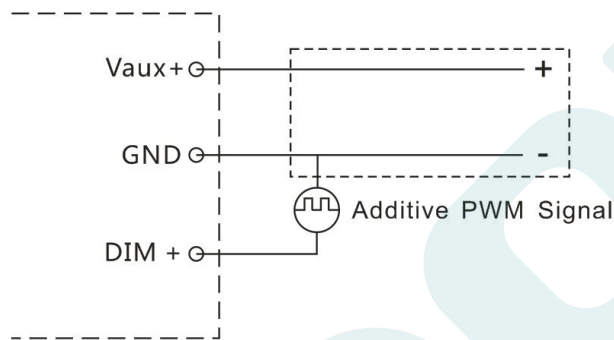
### ※ Three-in-one dimming function (S/X/CX version)

- A. Connect a resistor 0-100K or 0-10V DC voltage or 10V PWM signal between DIM+ and GND to adjust the output current.
- B. Output current of dimming port: 100uA (typical value).

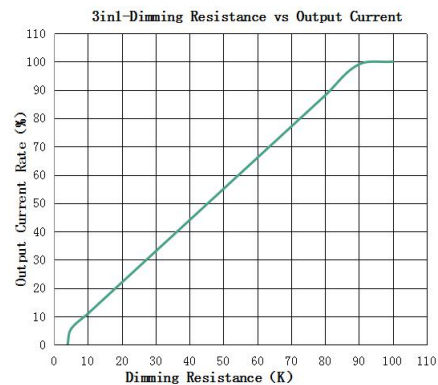
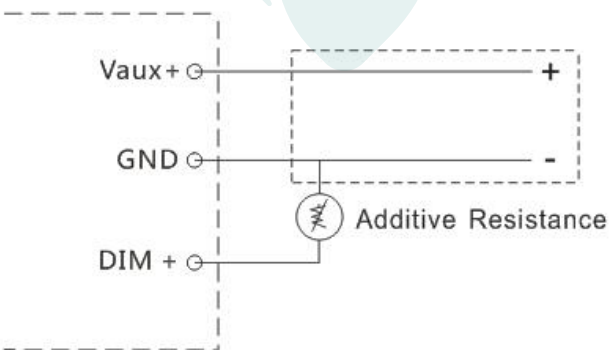
#### ⊙ Applied voltage of 0-10V:



#### ⊙ Applying additive 10V PWM signal (Frequency range: 300Hz-2K Hz) :



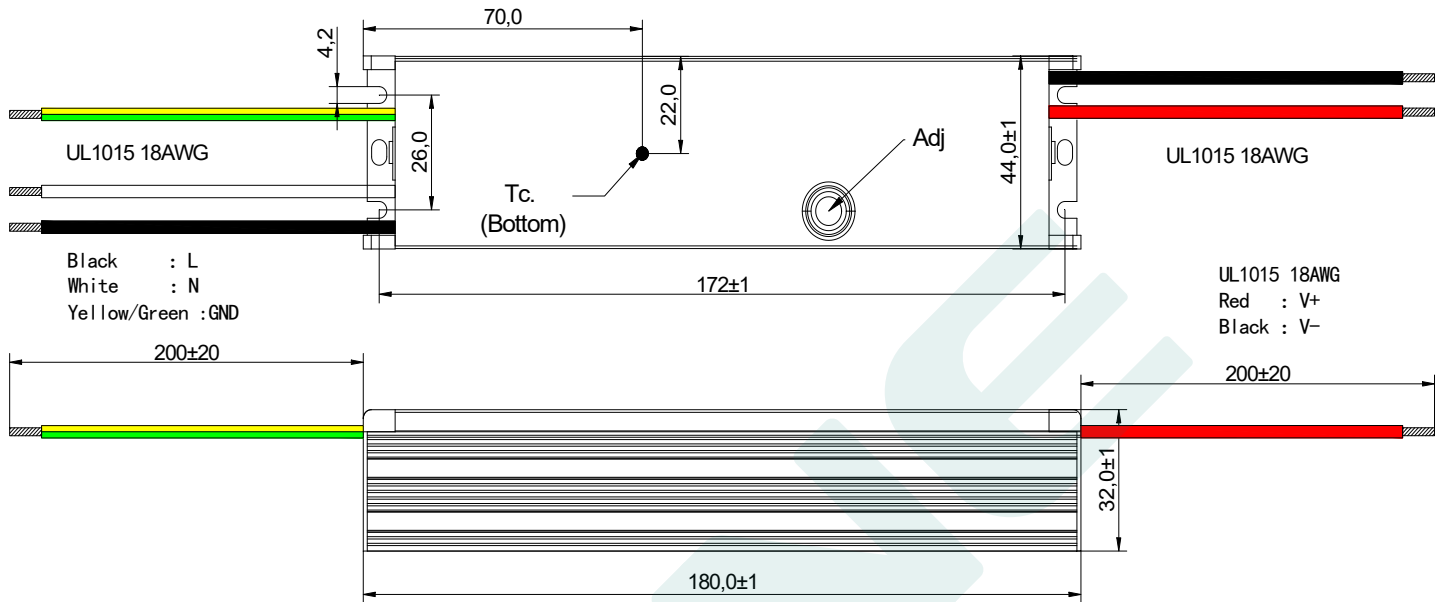
#### ⊙ Applied an additional 0-100K resistor:



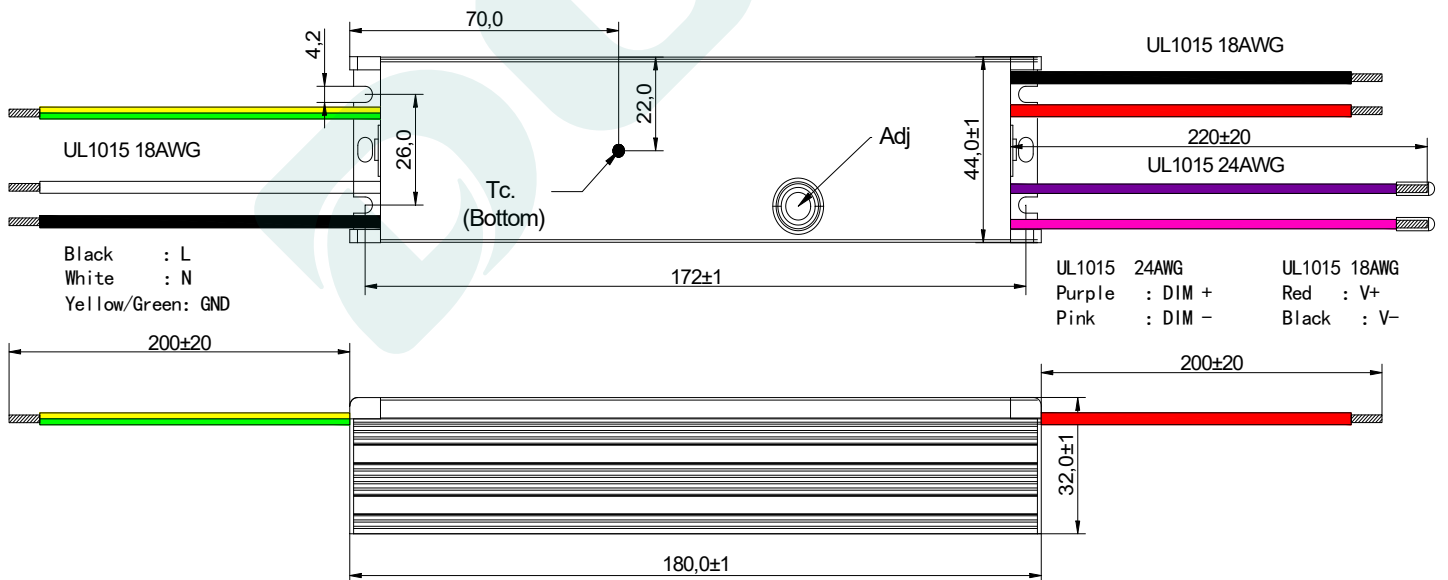
# Mechanical Specification

Dimension (mm) L180\*W44\*H32

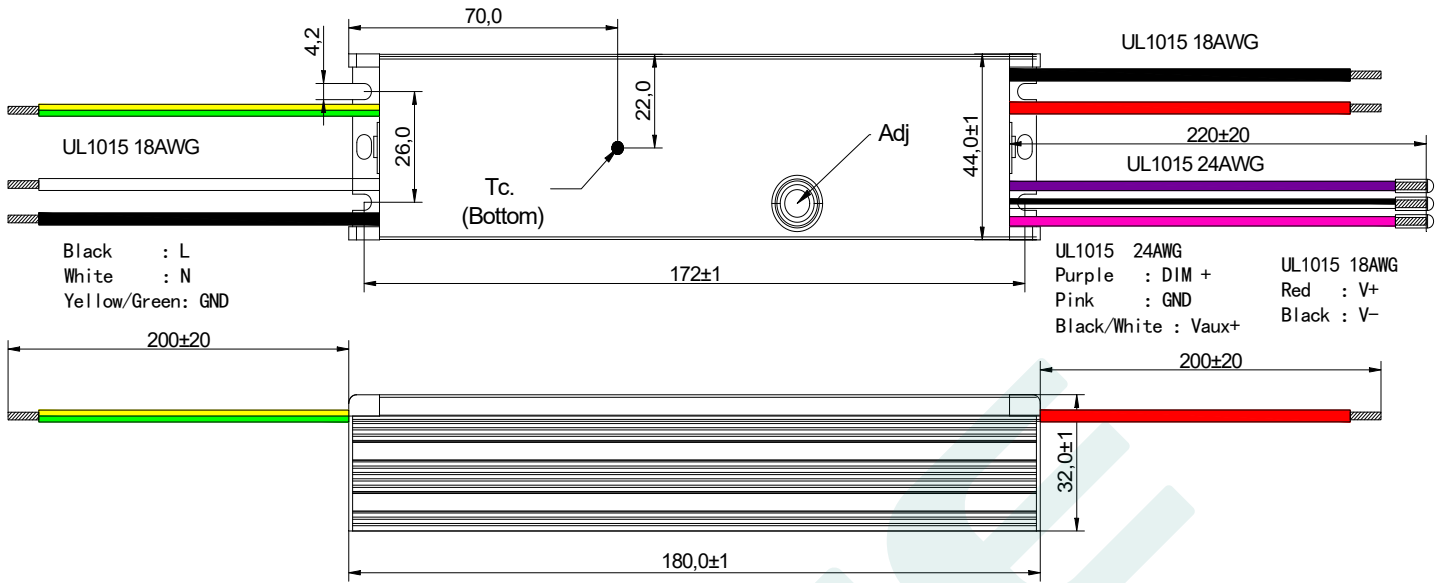
## DL-150Z-260A-PXG



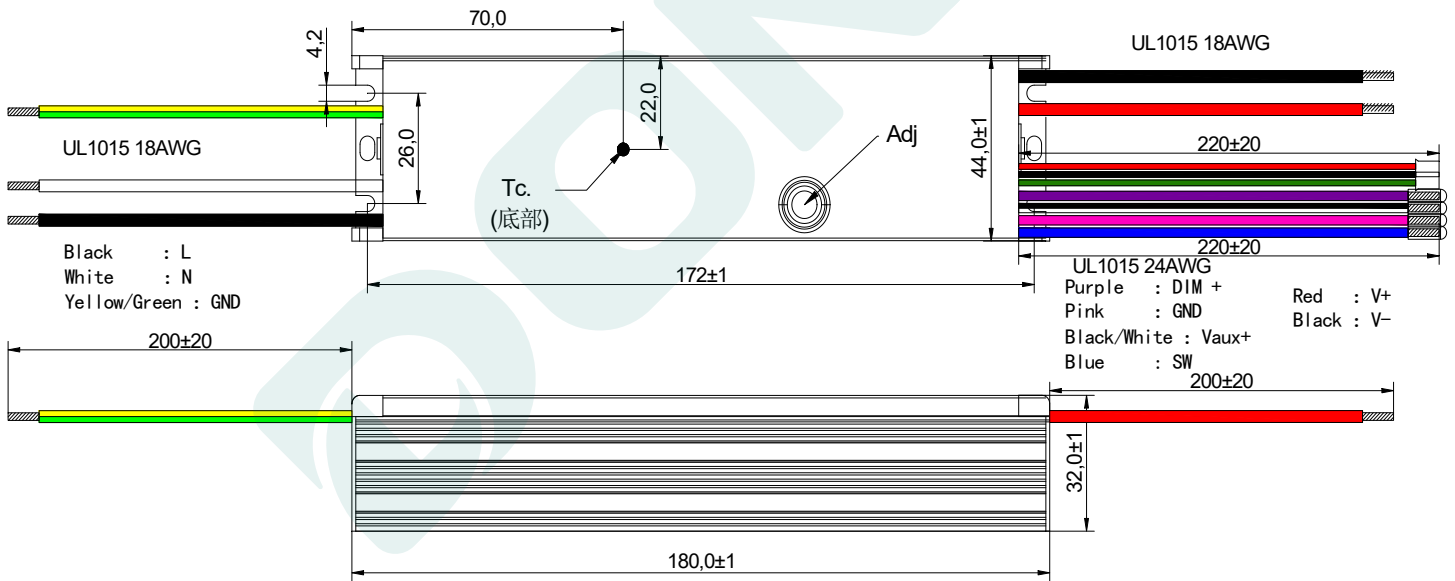
## DL-150Z-260S-PXG



**DL-150Z-260X-PXG**



**DL-150Z-260CX-PXG**

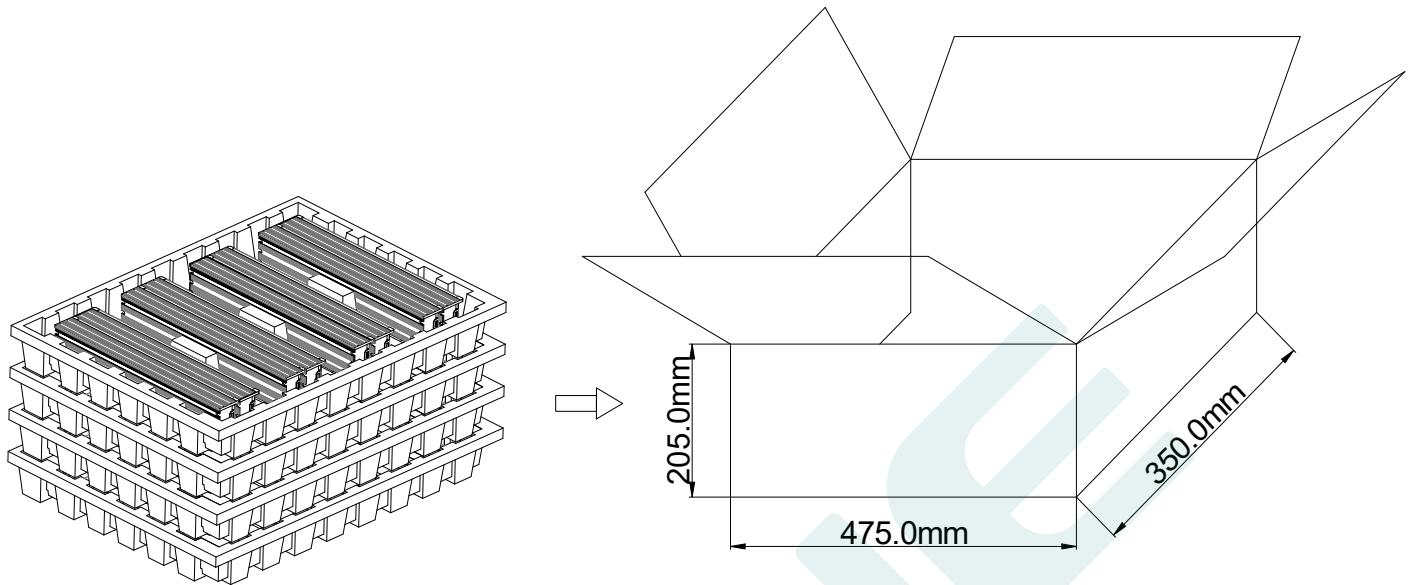


**Weight**

Weight 445g

## Packaging

BOX (mm) L475\*W350\*H205



Note: One Carton 4 layers and 8 pcs each layer, total 32pcs/carton.

**Note:**

1. According to the certificate obtained by the LED DRIVER, the LED DRIVER with the English label is sold in Europe, America and India.
2. The LED DRIVER with Chinese label is only used for China market.

## Revise & Version

| DATE       | DESCRIPTION      | REV. | CHECK |
|------------|------------------|------|-------|
| 2024.10.31 | Initial version. | V1.0 |       |
| 2025.4.23  | Update Package   | V1.1 |       |
|            |                  |      |       |
|            |                  |      |       |
|            |                  |      |       |

### MANUFACTRUER

| EDIT | CHECK | APPROVE |
|------|-------|---------|
|      |       |         |